Claims

1. Atomizer device for the production of a liquid-gas mixture (4), the mixture (4) produced preferably being introduced for the purpose of compression into a nozzle arrangement (3) in which the kinetic energy of the mixture (4) is in large part converted into compression energy of the gaseous component, wherein the atomizer device (2) consists of a nozzle member (20) which includes an at least approximately central pipe (16) for the gaseous medium and a rotationally symmetrical nozzle chamber (18) surrounding this pipe (16) for the liquid medium, the liquid feed (17) has means for producing a swirled liquid flow in the nozzle chamber (18), and the liquid in a nozzle aperture (19) coaxially enclosing the pipe (16) emerges from the nozzle member (20).

2. Atomizer device according to claim 1, wherein the liquid feed (17) opens tangentially into the nozzle chamber (18).

3. Atomizer device according to claim 1 or 2, wherein the nozzle chamber (18) tapers to an annular nozzle aperture (19).

4. Method for the production of a liquid-gas mixture (4) by means of an atomizer device (2), the mixture (4) produced being introduced, particularly for compression, into a nozzle arrangement (3) in which the kinetic energy of the mixture (4) is in large part converted into compression energy of the gaseous component, wherein a swirled liquid flow emerges from a nozzle aperture (19) of the atomizer device (2) and produces a swirling hollow conical spray (21) expanding in the flow direction, and the gaseous medium (13) enters via a central feed (16) into the reduced pressure zone (22) formed within the hollow conical shaped spray (21).

5. Method according to claim 4, wherein the swirled liquid flow is produced in a nozzle chamber (18) surrounding the pipe (16) for feeding the gaseous medium.

6. Method according to claim 5, wherein the swirled liquid flow in the nozzle chamber (18) is produced by means of at least one liquid feed (17) opening tangentially into the nozzle chamber (18).